ER/WM&I DDT

000107998

Performance Measure		December 17, 1996
Source/Driver: (Name & Number from ISP, IAG milestone, Mgmt. Action, Corres. Control, etc.)	**Closure #:** (Outgoing Corres. Control #, if applicable)	**Due Date**
W. R. Sproles **Originator Name**	G. D. DiGregorio **QA Approval**	A. M. Tyson **Contractor Manager(s)**
A. K. Sieben **Kaiser-Hill Program Manager(s)**	T. G. Hedahl **Kaiser-Hill Director**	

Document Subject:

TRANSMITTAL OF THE DRAFT PROPOSED ACTION MEMORANDUM FOR THE SOURCE REMOVAL AT THE MOUND SITE, IHSS 113, REV. 1 - AMT-101-96

KH-00003NS1A 96-RM-ER-0246-KH

Discussion and/or Comments:

Please find enclosed the Draft Proposed Action Memorandum for the Source Removal at the Mound Site and the Responsiveness Summary for transmittal to the Environmental Protection Agency (EPA). Per our comment resolution meeting on December 11, 1996 and EPA verbal approval on December 17, 1996, the PAM is being transmitted to the Reading Rooms for initiation of the Public Comment Period on December 18, 1996. Please find enclosed five copies for DOE and four copies for the EPA. If you have any questions regarding this document, please contact Wayne Sproles at extension 5790.

Enclosure:
As Stated

WRS/aw

cc:
M. C. Broussard
J. L. McAnally
W. R. Sproles
A. M. Tyson
R. Wood
Correspondence Control
ER Records Center (2)

ADMIN RECORD

ER/WM&I - 7/95

I113-A-00049

DRAFT

December 17, 1996 96-RF-XXXXX

Norma Castaneda
ES&H Program Assessment
DOE/RFFO

TRANSMITTAL OF THE DRAFT PROPOSED ACTION MEMORANDUM FOR THE SOURCE REMOVAL AT THE MOUND SITE, IHSS 113, REV. 1 – AKS-XXX-96

Please find enclosed the revised *Draft Proposed Action Memorandum (PAM) for the Source Removal at The Mound Site, IHSS 113* and the Responsiveness Summary (Attachement A). This revision of the PAM includes the responses to Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment comments received on December 9, 1996. Per our comment resolution meeting on December 11, 1996 and EPA verbal approval on December 17, 1996, the PAM is being transmitted to the Reading Rooms for initiation of the Public Comment Period on December 18, 1996.

Please find enclosed five copies for DOE and four copies for EPA. If you have any questions regarding this transmittal, please contact me at (303) 966-9886.

Ann K. Sieben
ER/WM&I Operations

Enclosures:
As Stated

DRAFT

December 17, 1996

Tim Rehder
United States Environmental Protection Agency
Rocky Flats Project
999 18th Street, Suite 500
Denver, CO 80202-2466

TRANSMITTAL OF THE REVISED PROPOSED ACTION MEMORANDUM FOR THE SOURCE REMOVAL AT THE MOUND SITE, IHSS 113, REV. 1

Please find enclosed the revised *Draft Proposed Action Memorandum (PAM) for the Source Removal at The Mound Site, IHSS 113* and the Responsiveness Summary (Attachment A). This revision of the PAM includes the responses to Environmental Protection Agency and the Colorado Department of Public Health and Environment comments received on December 9, 1996. Per our comment resolution meeting on December 11, 1996 and your verbal approval on December 17, 1996, the PAM is being transmitted to the Reading Rooms for initiation of the Public Comment Period on December 18, 1996.

We appreciate your continued support in meeting our accelerated project schedules. If you have any questions regarding this transmittal, please contact me at (303) 966-4839, or Norma Castenada of my staff at (303) 966-4226.

Steve Slaten
Manager, Regulatory Liaison

Enclosures:
As Stated

3

Attachment A

RESPONSIVENESS SUMMARY
DRAFT PROPOSED ACTION MEMORANDUM FOR THE SOURCE REMOVAL AT THE MOUND SITE

Comment #1: **Page 2, Project Description Section 2.0: The first paragraph lists several documents In which information has been documented for operable unit 2. In reviewing the list provided, we have discovered Information which is missing from our files, and are requesting a copy of the following: *Soil Vapor Survey Report for the Operable Unit 2 Subsurface Interim Remedial Action* (EG&G, 1994), and Figures 3.13-2 and 3.13-3 of the *Draft Trenches and Mound Site Characterization Report* (RMRS, 1996a). We also are not aware of a separate report entitled *Results of the 1996 Pre-Remedial Investigation of the Mound Site* (RMRS, 1996b). Please provide this document as well, if it is separate from the Draft Characterization Report listed above.**

Response #1: *Copies of the data, from the subject documents, that was used in the development of the PAM will be provided to EPA the week of December 16, 1996.*

Comment #2: **Page 10, Radionuclides in Soil Section 2.3.2: This section describes radionuclide evaluation criteria however, does not address radiological field screening procedures during the actual excavation. The PAM must include steps for screening excavated soils for radionuclides, methods for segregating and storage of any excavated soils which exceeds 5000 cpm (measured by field instrumentation) and procedures for sampling and analysis of any soil which exceeded this standard.**

Response #2: *Sections 3.2.1 and 3.3 of the PAM have been modified to specify radiological hold points and RFETS procedures for radiological monitoring.*

The segregation and storage of soils which exceed the radiological hold point will be addressed in the Field Implementation Plan. Procedures for sampling and analysis are included in the Sampling and Analysis Plan. The Sampling and Analysis Plan will be submitted for agency review and approval the first week of January, 1997.

Comment #3: **Page 11, Table 2-3 and 2-4: The total Tier II sum-of-ratios in Table 2-4 indicates a total dose greater than 50% of the annual limit. Using the results from borehole 14295, the Tier II sum-of-ratios total is greater than 1. Table 2-4: The values in the "Tier I Ratio" column do not add up to the indicated total. The AM-241 value appears to be the problem. Please correct this.**

Response #3: *The "Tier I Ratio" column has been corrected.*

Comment #4: **Page 11, Project Approach Section 3.0: Please clarify that there are no proposed action objectives with respect to radionuclides, i.e. that the proposed treatment does not affect radionuclide levels.**

Response #4: *Section 3.2.1 of the PAM states that volatile organic compounds (VOCs) are the contaminants of concern (COC) for this project. The Cleanup Target Levels and TDU Performance Goals for VOCs are described in sections 3.2.1 and 3.2.3, respectively.*

Comment #5: **Page 12, Proposed Action Section 3.2: This section states that the soil will be temporarily stockpiled, awaiting thermal desorption processing in an area 600 feet east of the Mound Site, and references Figure 2-1. Please provide a map which further delineates the precise stockpile location as this was not clearly delineated.**

Response #5: *Per our meeting on December 11, 1996, a clarification on the location of the CSFS was provided.*

Comment #6: **Page 12, Excavation Section 3.2.1: In the discussion of dust control and air monitoring, use of the samplers in the Mound Area (S106, S107, S109, and S119) should be required. Based on experiences with the T3/T4 excavations, weekly analysis for uranium should occur. Data from these referenced RFETS samplers and the CDPHE sampler near the trench site indicated that the earth moving activities caused a resuspension of uranium at levels even higher than those caused by the contaminated drum incident. In addition, more information concerning the referenced dust minimization techniques needs to be provided.**

Response #6: *High volume air samplers operate within the range to effectively monitor occupational worker exposure in accordance with 10 CFR 835. Per our meeting on December 11, 1996, RMRS will provide a demonstration for CDPHE on the use of high volume air samplers the week of December 16, 1996. The use of high volume air samplers will be described in the Health and Safety Plan.*

In addition to the RFETS Environmental Restoration Field Operations Procedure FO.01, Air Monitoring and Dust Control, the PAM addresses the use of water sprays, tarps, dust monitoring, and wind monitoring to minimize dust.

Comment #6a: **The text should state whether the organic vapor analyzer used to guide excavation activities is capable of detecting the organic contaminants of concern with the accuracy and precision required to determine if the cleanup target levels have been met.**

Response #6a: *The OVA will be used as a field screening tool to detect the presence of organic contaminants. The use of an OVA allows the field crew to quickly evaluate the need for continued excavation prior to the collection of confirmation samples. As described in Section 3.2.1 of the PAM, confirmation sampling will be performed in accordance with the Sampling and Analysis Plan. Excavation and sampling will continue until the cleanup target levels or the limiting condition is met.*

Comment #6b **Paragraph 2: This paragraph states that earth-moving operations will not occur during periods of high winds. Please describe the criteria for the term "high winds", i.e. what wind speeds?**

Response #6b: *Wind monitoring is addressed in the RFETS Environmental Restoration Field Operations Procedure FO.01, Air Monitoring and Dust Control, as described in section 3.2.1 of the PAM.*

Comment #7: **Page 12, Excavation Section 3.2.1, Paragraph 3: This paragraph generally describes post-excavation sampling to be conducted in the trench citing the Sampling and Analysis Plan (SAP). Very little detail was provided the PAM, thus further comments concerning this section may occur following evaluation of these sampling details.**

Response #7: *The Sampling and Analysis Plan will be submitted for agency review and approval the first week of January 1997.*

Comment #8: **Page 13, Excavation Section 3.2.1: Please provide an estimate of the incidental groundwater expected during this excavation; i.e. the maximum groundwater expected at the wettest time of the year.**

Response #8: *The anticipated average saturated thickness of the Rocky Flats Alluvium during the excavation of the Mound Site is 1.25 feet. The total inflow of groundwater into the excavation is estimated at 24 gallons/day from the Rocky Flats Alluvium. Inflow of groundwater from bedrock is estimated at 1 gallon/day. These are manageable quantities of water for site treatment. Incidental groundwater will be addressed in the Field Implementation Plan.*

Comment #9: **Page 14, Staging of Contaminated Soils Section 3.2.2 and Treatment Section 3.2.3: These sections describe both staging and treatment methods for the contaminated soils, however, it is not clear what time frame is planned from excavation to treatment. We recommend that stockpiling be kept to a minimal amount by performing thermal desorption concurrent with excavation activities. Please describe management practices to ensure storage at the Contaminated Soil Feed Stockpile (CSFS) will be kept to a minimum.**

Response #9: *Due to health and safety considerations and site limitations, treatment will be initiated at the completion of excavation activities. Every effort will be made to limit the duration between CSFS storage and treatment of the soils.*

Comment #9a: **This section also describes the use of a water resistant tarpaulin to prevent dispersion. Please clarify how this tarp will be secured to ensure it remains intact during high winds.**

Response #9a: *The tarp will be secured to tie-downs driven into the soil. This method has been used on previous projects and has been demonstrated to withstand high winds and prevent dispersion. Design of the CSFS will be addressed in the Field Implementation Plan.*

Comment #9b: **Also in section 3.2.3, there is no detail concerning the thermal desorption process. Please provide these details which were included in Ryan's Pit PAM, or at a minimum reference appropriate documents.**

Response #9b: *Description of the thermal desorption technology will be included in the Field Implementation Plan. The specific thermal desorption process will depend upon final vendor selection.*

Comment #10: **Page 15, Table 3.2 TDU Performance Standards: Performance standards listed in this table mirror Tier I action levels for subsurface soils, however, due to the type of waste present, i.e. listed hazardous waste, more stringent performance standards must be targeted in order to allow the materials to be disposed of in an area which does not meet minimum technology requirements. Therefore, the following performance standards, meeting approximately a 10-5 risk range should be used as target concentrations:**

Carbon Tetrachloride:	**0.6 mg/kg**
Methylene Chloride:	**0.577 mg/kg**
PCE:	**0.6 mg/kg**
TCE:	**0.6 mg/kg**

Response #10: *Per our meeting on December 11, 1996, the TDU Performance Goals have been modified so that they meet or are below both LDRs and the Tier I Subsurface Soil Action Levels, and provide additional risk reduction benefits. The revised TDU Performance Goals are the target concentrations for treatment with the Land Disposal Restrictions identified as ceiling concentration levels.*

Comment #11: **Page 15, Worker Health and Safety Section 3.3: It is unclear whether the Activity Hazard Analysis will be part of the Health and Safety Plan. It should be clear from this analysis what field conditions constitute the planned approach, how those conditions will be evaluated (i.e. qualitatively and quantitatively) and what the acceptable variances are from the planned approach. Please provide this information.**

Response #11: *Activity Hazard Analyses will be part of the Health and Safety Plan. Section 3.3 has been modified to provide clarification.*

Comment #11a: **No description is provided for the field radiological screening process or the types of instruments and measurements to be used to detect surface contamination and airborne radioactivity.**

Response #11a: *Sections 3.2.1 and 3.3 of the PAM have been modified to specify radiological hold points and RFETS procedures for radiological monitoring. Radiological instrumentation will be described in the Health and Safety Plan.*

Comment #11b: The PAM states that the data and controls will be continually evaluated, but does not state the frequency of evaluation, the criteria for evaluation, or the corrective actions that might result if the information varies from the planned approach. This section also does not identify which positions will perform the evaluation, their functional areas, or their relationship to the project manager or project coordinator.

Response #11b: *The evaluation of data and controls will be described in the Health and Safety Plan and the Field Implementation Plan. Areas of responsibility will be described in the Health and Safety Plan.*

Comment #12: Page 16, Waste Management Section 3.4, Paragraph 1: This paragraph states that additional sampling for radioisotopes will be performed if direct monitoring indicates that radionuclide are present above "expected levels". Please see Comment #2 above; these procedures need further elaboration.

Response #12: *Refer to Response #2.*

Comment #12a: Paragraph 2 and 3 of this section discuss ancillary wastes and residual materials, however no specifics is provided concerning criteria for characterization and locations or categories for disposal. Please provide this information.

Response #12a: *The criteria for characterization is discussed in the Sampling and Analysis Plan. Section 3.4 of the PAM has been modified to address waste storage and disposal.*

Comment #13: Page 16, Waste Management Section 3.4, Paragraph 3: This paragraph describes characterization methods of the residual materials and the third sentence of Page 14, Treatment Section 3.2.3, Paragraph 2 states that "If organic phase liquids are recovered from the condenser, these liquids will be containerized for offsite disposal". These sections warrant clarification. Please clarify how the organic phase liquids will be managed, and further elaborate on methods of generation (i.e. what unit in the process). The residuals from treatment of a listed waste are clearly a hazardous waste and must be managed accordingly. This requirement, per the 'derived from rule' is addressed in 40 CFR 261.3(c)(2)(I) which states that any solid waste generated from the treatment, storage or disposal of hazardous waste is itself a hazardous waste.

Response #13: *Section 3.4 of the PAM has been modified to address waste storage and disposal.*

Comment #14: Page 18, Action Level Framework Section 5.1.2: This section states that Tier I subsurface soil action levels for VOC's were adopted as cleanup target levels. See comment #10.

Response #14: *The response to this comment is addressed in Response #10.*

Comment #15: Page 19 and 29, Land Disposal Restrictions Section 5.2.3: This section discusses applicability of the land disposal restrictions. See comment #10 above concerning target levels; more stringent levels may be assigned to constituents of concern to ensure protectiveness of disposal in an unlined landfill.

Response #15: *The response to TDU Performance Goals is addressed in Response #10.*

Comment #15a: **Also, the second paragraph states that "when the condensate is transferred to the CWTF (Building 891) for treatment, RCRA is no longer applicable or relevant and appropriate because of the Waste Water Treatment Unit Exclusions". Please provide further justification for classifying the condensate as waste water.**

Response #15a: *On June 25 1991, the CDPHE issued a "Policy on Wastewater Treatment Unit Exemption". This policy included the following criteria which must be met for a condensate from a thermal desorption unit to qualify as a "wastewater":*

- *The wastewater must contain less than 1% by weight (10,000 ppm) total organic carbon (TOC),*
- *the wastewater must contain less than 1% by weight (10,000 ppm) total suspended solids (TSS),*
- *the wastewater must contain less than 1% by weight (10,000 ppm) total F001 and F002 solvent constituents listed in 6 CCR 1007-3, 268.40,*
- *the water content of the wastewater must be at least 90% by weight,*
- *the flashpoint of any phase of the waste must be above 140°F, and*
- *the wastewater must not have any phase which could cause the wastewater to exhibit the characteristic of reactivity.*

Section 5.2.3 of the PAM has been modified to ensure that analysis of the wastewater will be performed to demonstrate compliance with the CDPHE Policy on Wastewater Treatment Unit Exemption, dated June 25, 1995.

Comment #16: **Page 20, Contaminated Soil Feed Stockpile (CSFS) as a Corrective Action Management Unit (CAMU) Section 5.2.4: This PAM seeks to classify the CSFS as a CAMU, however, we believe the CAMU classification carries certain connotations which do not necessarily apply in this case. We believe that the CSFS can be classified as a waste pile and such requirements shall be met to the maximum extent practicable. Please provide further clarification for utilizing the CAMU classification, otherwise revise this section to reflect addressing substantive requirements for the temporary waste pile.**

Response #16: *Per our meeting on December 11, 1996, because the CSFS is an area of contamination, previously identified as Operable Unit 2, the ARARs framework will be modified accordingly.*

Comment #17: **Page 21, Table 5-1: This table lists inspection requirements as one of the RCRA Subpart B substantive requirements. Further information concerning inspection frequency not only of the equipment but also the CSFS during operations (daily), and associated structures must be included.**

Response #17: *The RCRA Substantive Requirements table has been modified to address inspection frequency.*

Comment #18: **Page 22, Table 5-2: This Table states that the CSFS will be placed at a location previously used for the same purpose. Please provide further information concerning this location, i.e. when and how it was used, and type and extent of verification sampling performed.**

Response #18: *The proposed CSFS will be established in the same location and used for the same purpose as the T3/T4 Source Removal Project in FY96. Extent and verification sampling was conducted at the completion of the T3/T4 Source Removal Project in accordance with the T3/T4 Sampling and Analysis Plan. In addition, excavation and radiological screening to removal radiological contamination was performed.*

Comment #19: **Page 23, Temporary Unit Tank and Container Storage Section 5.2.6, and Page 24, Closure Requirements Section 5.2.7: It is unclear in these sections what the number and types of containers and storage units are to be utilized. Please provide further information concerning purpose and types of such units.**

Response #19: *The use of and number of temporary storage tanks (carbon steel and polyethylene) and containers (carbon steel drums and tanker trucks) for contaminated groundwater, surfacewater, condensate and decontamination liquids will be determined during the procurement process for the treatment vendor. Issuance of the Statement of Work for treatment is awaiting approval of the Proposed Action Memorandum.*

Comment #20: **Page 24, Closure Requirements Section 5.2.7, Paragraph 5: This paragraph references decontamination procedures, however, fails to provide methods for analyzing the wastewater generated.**

Response #20: *The analysis of wastewater will be described in the Sampling and Analysis Plan. The Sampling and Analysis Plan will be submitted for agency review and approval the first week of January, 1997.*

Comment #21: **Page 24, Closure Requirements Section 5.2.7: There is no discussion of performance monitoring with regard to the associated groundwater plume. Please identify which wells will serve to monitor performance and discuss how this will be measured.**

Response #21: *Performance monitoring will be performed under the Integrated Groundwater Monitoring Program. The Groundwater Monitoring Working Group will select the monitoring wells for performance monitoring. Plume remediation will be addressed as a future remedial action.*

Comment #22: **Page 25, VOC and Particulate Emission Controls Section 5.2.8; The Air Quality Control Commission's Regulation No. 3, specifically Appendices A and B, need to be considered, since both CCl_4 and PCE are Bin A pollutants subject to a 250 lb/yr limitation.**

Response #22: *Based on air emission calculations, an APEN will be submitted to the CDPHE. Total VOCs and PCE have been estimated to exceed the criteria air pollutant level of 2000 lbs/yr and the hazardous air pollutant level of 250 lbs/yr, respectively.*

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